COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE

DRAFT STRATEGIC PLAN

Submitted for Review

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Foreword

The Cooperative State Research, Education and Extension Service (CSREES) is a unique Federal agency. In USDA, the agency has primary responsibility for providing linkages between the Federal and State components of a broad-based, national agricultural research, extension, and higher education system. Focused on national issues, its purpose is to represent the Secretary of Agriculture and the intent of Congress by administering formula and grant funds appropriated for agricultural research, extension, and higher education. In addition to its national leadership in setting research and education priorities, it provides a means of feedback from the states to Congress and the Executive Branch of Government, communicating local, regional, and national priorities.

In administering Federal formula and grant funds, CSREES is responsible for the major extramural programs of USDA that sustain high-quality research and education initiatives. The agency is concerned with planning ways in which the Federal and State partnership will respond to research and educational needs for the common good of agriculture and our Nation.

The CSREES strategic planning process complements the planning efforts of the USDA and becomes a flexible instrument for establishing five year goals, priorities and implementation strategies. The strategic planning process therefore will be a useful guide for the efficient and responsive allocation of national food and agriculture research and education. It will prepare American agriculture to meet the 21st Century's primary challenges - finding environmentally and economically sustainable ways to develop the most successful agricultural production system in history utilizing the partner resources of the U.S. Department of Agriculture and the expertise of scientist and other professionals at colleges, universities and public and private laboratories.

We appreciate the interest and support of CSRES senior program staff and partners who contributed in the development of this strategic plan, and look forward to continued dialog that will produce revisions that will further strengthen research and education related to agriculture and the environment.

Charles W. Laughlin Administrator

June 28, 2000

Introduction

The Congressionally mandated Government Performance and Results Act (GPRA) of 1993 requires Federal agencies to prepare strategic plans that provide an overall guide to the formulation of future agency budget requests and "management for results." The CSREES Strategic Plan developed in accordance with GPRA requirements outlines agency expectations for agricultural research, education, and extension over the period 2000-2004. It also provides a mechanism for assessing and redirecting agency programs to achieve strategic goals.

As one of four agencies in the Research, Education, and Economics (REE) Mission Area, CSREES initiated its strategic planning process in the spring of 1994 in consultation with university partners and has continued discussions to redirect resources in response to change. The plan is linked with the plan of the REE Mission Area and serves as a point of engagement with the USDA Chief Financial Officer, the Office of Management and Budget (OMB), and Congress in the planning, conduct, and evaluation of research and education programs.

The plan represents the cooperative work of administrative and program staff and reflects the planning of CSREES and its partners with input at the Federal, State and local levels. It assures a focus on planning and on attaining measurable outcomes and net impacts in the CSREES program areas and provides for accountable management of funds in response to broad National and State priorities. The plan delineates the critically important cornerstones for research, extension and education efforts for the base programs (Smith-Lever 3(b) & (c); 1890 Institutions-Extension Programs; Hatch; McIntire-Stennis; Cooperative Forestry; Evans-Allen; and Animal Health and Disease Research), and competitive and special grants.

The strategic plan will be continuously reviewed and updated to respond to new and emerging issues important to citizens and the Nation.

The Environment for Agency Planning and Operating

A number of domestic and international factors, including economic, social, political, technological, informational, educational, and environmental trends, will influence the implementation and evaluation of the CSREES strategic plan. Research, higher education, and extension programs are essential to help U.S. citizens, agricultural and food industries, and the government respond to many complex social, environmental, and economic issues. As global issues, they affect U.S. competitiveness in international markets. Long-term investment in research, higher education, and extension will provide effective ways to address national issues and priorities.

Internal Environment

Several trends at USDA will affect the internal environment within which CSREES will function. Departmental and agency downsizing, in accordance with the National Performance Review, will continue. This may result in the elimination or privatization of some programs and responsibilities; the devolution of programs and responsibilities from the federal agency to other entities; regulatory reform, and increased cooperation and coordination across programs.

Resources for CSREES programs also are expected to change in relationship to administrative priorities. In recent years, CSREES appropriations for base programs have decreased by 1.5-2.5 percent annually, in inflation-adjusted dollars, although funding for other programs has increased. The ratio of formula or base program funding (e.g., Hatch, McIntire-Stennis, Evans-Allen, Animal Health and Disease, and Smith-Lever 3[b] and 3[c]) to nonformula funding will likely remain level. Funding for special initiatives, however, is expected to increase.

An increasing portion of Federal and State-appropriated funds will be distributed competitively. The need to justify the continuation of science-based programs through applied research and impact assessment will increase. Inside and outside government, the debate over the federal government's role in applied research and technology development will continue, as will concern over the amount of Federal funds expended on research and technology transfer. Public concern about the quality and validity of scientific research and public education also is expected to continue, as is public interest in environmental issues and demand for an economical, safe, and wholesome food supply. Progress will be made in conveying the impacts and direct application of scientific research to the public, thereby bolstering public trust in science.

External Environment

A number of factors external to USDA and CSREES also will affect the agency's environment. Continuing increases in both global population and per-capita incomes over the next 10 years are expected to result in a strong increase in the demand for food. This development could have a dramatic impact on many aspects of American agriculture. The U.S. economy is expected to grow steadily, with the Gross Domestic Product outpacing inflation each year for the next decade.

Some groups of stakeholders and customers have high expectations that research, higher education, and extension will help them address important issues facing the agricultural sector. These stakeholders and customers range from commodity groups, producers, and processors to health care providers and environmentalists. In this political and social environment, careful attention to the identification and pursuit of critical national priorities will help maintain the agency's successful record in strengthening our Nation's ability to compete in the global marketplace. This will occur in a context of burgeoning international interdependence and competition vis-a-vis the export of U.S. agricultural science and technologies.

Pressures on Federal program benefits will result from changing Federal policies related to accountability, particularly those arising from revisions of the Farm Bill; the need to comply with new regulations; international trade agreements; and continuing constraints on declining budgets to support research and education. Consequently, little or no growth is expected to occur in farm production subsidies, and in some cases they will be substantially reduced or eliminated. The current focus on global environmental issues and their impact on agriculture is expected to continue. Similarly, budget constraints are likely to necessitate reduced state and local funding for research, higher education, and extension activities at land-grant universities and other institutions. This has already led to reductions in the number of faculty members in the food and agricultural sciences.

Because of consolidation and reductions in programs, the strong need for coordination among universities, USDA and other Federal agencies, and other institutions will continue. The long-term effect of reduced funding will be a diminution in the availability of scientists for agricultural research and of professional workers for the entire system. However, the increasing complexities of conducting science and business in the future will require more highly educated workers with degrees in the food and agricultural sciences.

Recapturing excellence in education to meet growing national and international challenges will require dedicated effort on the part of all segments of the Federal government. CSREES must work to improve the image of agriscience and agribusiness, to strengthen undergraduate and graduate education, and to provide a more diverse scientific and professional workforce in the food and agricultural fields. Currently, employers' needs for graduates in many food and agricultural science areas (e.g., marketing and merchandising) are not being met. This is true despite the fact that employers have turned to graduates in disciplines allied with the food and agricultural sciences.

The Federal government's role in applied research and technology development will continue to be debated, as will concerns about funds for fundamental research. CSREES programs will be required to justify their existence on a regular basis, particularly for activities supported with Federal formula funds. Although the successful record of the land-grant university system in partnership with USDA provides a sound basis for significant future contributions, this system will have to be justified repeatedly. Increased emphases on economic, environmental, and sociological assessments will be necessary to document the benefits of publicly supported research and education programs.

The debate over environmental, agricultural, and social issues will challenge policy makers to find a balance among regulatory, educational, and voluntary approaches to attainment of an economically, environmentally, and socially sustainable agriculture. CSREES will work with university partners, other Federal agencies and private sector organizations, as appropriate, to address these challenges successfully. To resolve issues of sustainable agriculture under complex environmental and social conditions requires well-educated and well-informed producers, processors, and consumers of food, fiber, and other natural products.

Complex issues affecting children, youth, families, and the elderly will challenge the coping abilities of communities and families to sustain and enhance individual and community development. Research in the interests of the "social good" will continue to be valued highly. The need to integrate research, higher education, and extension programs to help children, youth, families, and communities address social issues more effectively will place greater demands on CSREES and its Federal, State and private sector partners. These demands will involve tasks such as development of local collaborations, generation of effective programs, and demonstration of clear and measurable results.

The technological advances of the 20th century set the stage for CSREES and its partners to enhance access to the information base of our land-grant partners. Given societal change and the direction of the technological future, all citizens will need ready access to lifelong research-based information. However, the expansion of the volume of information and the inequalities of access to education and information via communications technology comprise two major issues confronting CSREES and its partners. CSREES will be challenged to help all citizens interpret research information on topics in the

food and agricultural arena; to enable policy makers to respond to critical concerns; and to link researchers, customers, organizations, and policy makers nationwide. Research and education must be viewed as essential to the effective resolution of these issues.

The Federal/State Partnership

In September 1994, under the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act, Congress authorized the establishment of the Cooperative State Research, Education, and Extension Service (CSREES). This new agency was formed as a result of efforts by the Legislative and Executive branches of government to streamline Federal agencies, including the USDA, and to increase its efficiency and effectiveness in serving the nation. CSREES combines the missions, resources, personnel, and responsibilities of the former Cooperative State Research Service (CSRS) and the Extension Service (ES). It is the primary Federal link to university and other partners in cooperative programming in the food and agricultural sciences. The universities are partners in carrying out the agency's mission and achieving its goals with Federal funding.

Although CSREES does not exercise line authority over its partners, it does have certain statutory oversight responsibilities and authority for the funds that it channels to these institutions and individuals. This holds true whether CSREES funds constitute the sole source of a program's funding or only a minor source of support. CSREES-administered funds provide land-grant institutions and other partners with stable, readily available support, thereby leveraging additional staffing and financial resources, three to four-fold, thus the benefits to society are the result of public and private investment.

Legislative Authorities

Research and education programs administered by CSREES are USDA's principal entree to the university system of the United States for the purpose of conducting agricultural research and education programs as authorized by the Hatch Act of 1887, as amended (7 U.S.C. 361a-361i); the Smith-Lever Act of May 8, 1914, as amended; the Cooperative Forestry Research Act of 1962, as amended (16 U.S.C. 582a-7); Public Law 89-106, Section (2), as amended (7 U.S.C. 450i); the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3101 et seq); and the Agricultural Research, Extension, and Education Reform Act of 1998 (Public Law 105-185). Through these authorities, USDA participates with State and other sources of funding to encourage and assist the State institutions in the conduct of agricultural research and education through the State Agricultural Experiment Stations and the Cooperative Extension Service of the 50 States, the District of Columbia and the territories; approved Schools of Forestry; the 1890 Land-Grant Institutions and Tuskegee University; Colleges of Veterinary Medicine; colleges of agriculture; schools and colleges of family and consumer services; Native American Land-Grant Institutions; Hispanic-Serving Institutions; and other programs at these institutions.

The State institutions conduct research and experiments on the problems continuously encountered in the development of permanent and sustaining agriculture and forestry, and in the improvement of the economic and social welfare of rural and urban families. Because of differences in climate, soil, market outlets, and other local conditions, each State has distinct problems in the production and marketing of crops and livestock. To address these problems, farmers, foresters, and rural residents in the individual States naturally look to their State Agricultural Experiment Stations, universities, and colleges for solutions.

The State institutions also provide a national network of educational programs that are pledged to meeting the country's needs for research knowledge as a basis for practical decision making. This need is met through the Cooperative Extension System, which helps people improve their lives through an educational process that uses scientific knowledge focused on issues and needs. These nonformal educational programs improve American agriculture, communities of all sizes, and strengthen and sustain individuals and families throughout the Nation.

The Department's higher education mission is carried out in strong alliance with States, universities and the private sector. Recognizing the significance of this alliance, the Food and Agriculture Act of 1977 designated USDA as the lead Federal agency for higher education in the food and agricultural sciences. Through CSREES, USDA has implemented its charge with a broad array of initiatives to link teaching, research, and extension and to improve the training of food and agricultural scientists and professionals.

Cooperation is key to the success of research, education and extension programs at State institutions. To be most effective, cooperative efforts include participation in local, state, regional, and national programs. Joint effort by a group of State institutions is the most effective and often the only practical approach to problems of common interest. The research, education and extension components are acting together as regional groups to provide cooperative, coordinated attacks on problems of regional and national interest. In a similar manner, the research programs of the State institutions and the Department of Agriculture are complementary and interdependent.

Federal and State Budgets

In administering an annual appropriation of approximately \$950.2 million for FY 2000, CSREES had a staff year ceiling of approximately 440 Washington, DC- based staff. Through the land-grant university partnership, 75 universities work in close cooperation with CSREES, employing more than 9,500 scientists, and 9,600 extension educators and engaging nearly 3 million volunteers supporting activities in the 50 states (3,150 counties), the District of Columbia, and the six territories (Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Marianas and Micronesia). The scientific and educational staff base of the land-grant universities is expanded through the participation of scientists and educators from other non-land-grant universities and private sector organizations. These professionals participate in a number of competitive grant opportunities related to the research and education mission of CSREES. Research and education programs respond to national, regional and state needs, and the American consumer benefits in the form of safe, wholesome and affordable food, fiber, and other renewable resources. At these institutions, approximately 100,000 students are trained each year in academic programs in agriculture, human development, and natural resources.

The Federal formula funds managed by CSREES constitute a powerful force in bringing about interstate cooperation and Federal-State collaboration in the planning and conduct of agricultural research. Accordingly, the impact of Federal formula funds is far greater than would be expected solely on the

basis of the amount of funds provided. Each Federal dollar appropriated for research, education, and extension leverages 4-5 State, local, and private dollars. This leveraging of resources among the partners maximizes the efficiency of the Federal investments in research and education and ensures that support from other public and private sources focuses on problems and issues important to maintaining competitiveness of U.S. agriculture in the global marketplace. In short Federal funds form the "glue" of the Federal/State partnership.

Strategic Plan

CSREES Mission

The mission of CSREES is to achieve significant and equitable improvements in domestic and global economic, environmental, and social conditions by advancing and enabling creative and integrated research, education, and extension programs in food, agricultural, and related sciences in partnership with both the public and private sectors.

CSREES Vision

CSREES is an agency providing innovative and insightful leadership to USDA partnerships for creating relevant, excellent, and useful research, education and extension programs which help people, industry, and governments solve current and emerging problems.

Functions

The Agency functions are the operatives by which activities associated with the plan are implemented. Through awarding grants, CSREES can enable institutions/universities to achieve the following functions:

- Originate fundamental knowledge from basic research at the frontiers of the biological, physical and social sciences.
- Produce, apply, and adopt applied research-based knowledge in innovative ways to address problems and issues.
- Provide developmental research and technology transfer to promote the commercialization and transfer of technologies and practices to potential users in a timely, cost-effective manner.
- Provide leadership in the delivery of research-based knowledge through extension, outreach, and information dissemination to strengthen the capacity of public and private decision makers.
- Strengthen the capacity of institutions of higher education to develop the skills of the Nation's workforce in the food and agricultural sciences.
- Assure quality control, review, oversight of programs supported through Federal funding.

 Coordinate programs across institutions to create a national perspective and minimize duplication of effort.

CSREES Values

The CSRES values distinguish the agency as a leader and enabler in providing quality research, education, and extension programs. These values include:

- Quality and excellence. CSREES is dedicated to maintaining rigorous standards in research, higher education, and extension.
- Relevance. The agency sets priorities, allocates resources, and provides service relevant to customers' needs.
- Creativity and innovation. CSREES encourages imaginative, original, and inventive analyses and programs.
- Responsiveness. The agency targets research and education resources to the changing needs of partners and customers.
- Timeliness. CSREES strives to deliver programs as quickly as possible.
- Accessibility. The agency ensures that services, programs, and resources are provided without bias or discrimination.
- Diversity. CSREES values and supports diversity and pluralism in the agency and in the constituents it serves.
- Integration. The CSREES workforce, partners, and customers demonstrate collaboration and cooperation.
- Efficiency. CSREES acknowledges taxpayers' stake in the agency and channels resources so as to avoid waste and redundancy.
- Decentralization. The agency accomplishes its goals through its university partners and the
 research, higher education, and extension systems by transferring knowledge, technology, and
 skills to customers--enabling them to set their own priorities and to make informed decisions
 about issues.
- Accountability. The agency documents program impacts and communicates program outcomes
 to stakeholders, partners, and customers in accordance with administrative guidance and
 existing legislation.

The values inform the work of CSREES and provide benchmarks of quality against which to measure administrative and program performance.

CSREES Guiding Principles

CSREES, as a Federal agency, is both the catalyst and the focal point for national programs of research, higher education, and extension conducted throughout the land-grant university system and by other partners. Through CSREES, USDA fulfills responsibilities related to cooperative research, higher education, and extension as mandated by federal legislation. In carrying out these principles, CSREES:

- Provides national leadership to emphasize national program priorities; to foster collaboration; to
 avoid duplication of effort; and to provide access to, transfer of, and dissemination of education
 and research-based information targeted to customer needs.
- Participates in a system for the formulation of research, higher education, and extension policies and programs that interdependently address customer needs at the State and local levels.
- Serves as a contact point for State and local partners seeking information and guidance about legislation, funding, regulations, and other national and international concerns.
- Initiates cooperative agreements and contracts with institutions and individuals; awards grants to
 these partners; and performs the analysis, planning, evaluation, and coordination necessary to
 accomplish the agency's mission.

CSREES also provides a unified federal voice to represent the research, higher education, and extension interests of land-grant institutions in dealing with other agencies within the Federal Government.

Outcomes, Goals, and Program Objectives

CSREES is one of four agencies that comprise the Research, Education and Economics (REE) Mission Area of USDA. This extramural research agency links USDA to the land grant university system and other research institutions and agencies enabling the achievement of joint goals and objectives. CSREES and its partners operate to effect different outputs resulting in shared outcomes. For example, the agency may design and implement a new grants program leading to increased technology transfer efforts resulting in new businesses and jobs in rural areas. The CSREES Agency Strategic Plan is linked to five broad societal goals or outcomes approved for the REE Mission Area. The goals form the framework from which the agency will launch procedural and program strategies which, in combination with system program action and implementation will lead to joint accomplishments reported in the plan. While the goals have been accepted as the basis for developing accountability measures under GPRA, it is important to note that these goals offer challenges in linking CSREES as the enabling Federal agency with those eligible institutions and organizations who perform the work. While these goals are in some instances measurable, the research and extension efforts provide unique challenges because many of the impacts and outcome measures are difficult to quantify, as the benefits of research may be difficult to anticipate. Despite this concern, significant in this statement is the fact that there is an equal commitment on part of the Agency and its partners to respond to the challenges of GPRA by providing outputs at the State and county levels that can be aggregated at the national level to measure the success of research and extension activities.

Goals

In the CSREES Strategic Plan, the goals adopted by the Research, Education and Economics Mission Agency have been used as goals from which to launch the strategic plan and identify measures in response to accountability.

- An agricultural production system that is highly competitive in the global economy.
- A safe, secure food and fiber system.
- Healthy, well-nourished population.
- Greater harmony between agriculture and the environment.
- Enhanced economic opportunity and quality of life for Americans.

The sections that follow provide illustrations on how the plan will be used to implement research, extension, and higher education programs important to the CSREES Mission through actions of the Federal partner and the broad agricultural knowledge system.

REE Goal 1. An agricultural production system that is highly competitive in the global economy

CSREES Objective 1.1: To produce new and value-added agricultural products and commodities.

Outputs

- To annually increase the research and knowledge-base of the CSRES partners and cooperators on new and value-added commodities and products in U.S. agriculture.
- To annually increase agricultural producer awareness, understanding, and information
 regarding the production of new and value-added commodities and products in U.S.
 agriculture in which CSREES partners and cooperators play an active research,
 education, or extension role.

Outcomes

- To annually increase the total number of new and value-added U.S. agricultural commodities and products introduced into domestic and foreign markets in cooperation with CSREES partners and cooperators.
- To annually increase the quality of new and value-added U.S. agricultural commodities and products introduced into foreign markets.

CSREES Objective 1.2: To increase the global competitiveness of the U.S. agricultural production system.

Outputs

- To annually increase the research and knowledge-base available from CSREES
 partners and cooperators on improving the productivity and global competitiveness of
 the U.S. agricultural production system.
- To annually increase agricultural producer awareness, understanding, and information
 on improving the productivity and global competitiveness of the U.S. agricultural
 production system in which CSREES partners and cooperators play an active research,
 education, or extension role.

Outcomes

• To increase the productive efficiency of the U.S. agricultural production system.

CSREES Objective 1.3: To recruit and educate a diverse set of individuals for careers as future scientists, professionals, and leaders who are well-trained in agricultural sciences.

Outcomes

- To strengthen the capacity of higher education institutions to develop future scientists, professionals, and leaders in agricultural production sciences and related disciplines who will more effectively contribute to the productivity and global competitiveness of the U.S. agricultural production system.
- To meet the annual demand in the market for individuals formally educated and trained at institutions of higher education as scientists, professionals, and leaders in agricultural production sciences and related disciplines.

CSREES Objective 1.4: To improve decision-making on public policy issues related to the productivity and global competitiveness of the U.S. agricultural production system.

Outputs

• To annually increase the research and knowledge-base available from CSREES partners and cooperators on public policy issues affecting the productivity and global competitiveness of the U.S. agricultural production system.

Outcomes

To enhance efforts to foster constituent and citizen participation on public policy issues
affecting the productivity and global competitiveness of the U.S. agricultural production
system.

REE Goal 2. A safe, secure food and fiber system

CSREES Objective 2.1: To improve access to an affordable, healthful, and culturally relevant food supply.

Outputs

- To annually increase the research and know-ledge-base available from CSREES partners and cooperators on food accessibility and affordability.
- To annually increase consumer awareness, understanding, and information on food accessibility and affordability in which CSREES partners and cooperators play an active research, education, or extension role.

Outcomes

- To annually increase consumer awareness, understanding, and information on food accessibility and affordability in which CSREES partners and cooperators play an active research, education, or extension role.
- To annually increase the effectiveness of constituent and citizen participation on public policy issues affecting food security (i.e., food access, affordability, and recovery).

CSREES Objective 2.2: To improve food safety by controlling or eliminating food borne risks.

Outputs

• To annually increase the research and knowledge-base available from CSREES partners and cooperators on food safety and food borne risks and illnesses.

Outcomes

- To annually increase consumer awareness, understanding, and information regarding food safety and food borne risks and illnesses in which CSREES partners and cooperators play an active research, education, or extension role.
- To strengthen the capacity of higher education institutions to develop future scientists, professionals, and leaders in food sciences who will more effectively contribute to a greater under-standing of food safety, including food borne risks and illnesses.

REE Goal 3. A Healthy, well nourished population

CSREES Objective 3.1: To optimize the health of consumers by improving the quality of diets, the quality of food, and the number of food choices.

Outputs

• To annually increase the research and knowledge-base available from CSREES partners and cooperators on human nutrition, and family and consumer sciences

Outcomes

• To annually reduce health risk factors through non-formal educational programs to improve dietary habits and physical exercise practices in which CSREES partners and cooperators play an active research, education, or extension role.

- To annually increase consumer awareness, understanding, and information on dietary guidance and appropriate nutrition practices in which CSREES partners and cooperators play an active research, education, or extension role.
- To strengthen the capacity of higher education institutions to develop future scientists, professionals, and leaders in human nutrition, and family and consumer sciences who will more effectively contribute to understanding issues related to human nutrition, and family and consumer sciences.
- To meet the annual demand in the market for individuals formally educated and trained at institutions of higher education as scientists, professionals, and leaders in human nutrition, and family and consumer sciences and related disciplines.

CSREES Objective 3.2: To promote health, safety, and access to quality health care.

Outputs

• To annually increase the research and knowledge-base made available by CSREES partners and cooperators on health sciences and health promotion.

Outcomes

- To annually improve individual and family health status through non-formal health education and promotion programs in which CSREES partners and cooperators play an active research, education, or extension role.
- To annually improve the level of individual and family safety (or reduce risk levels) from accidents in homes, schools, workplaces, and communities.
- To strengthen the capacity of higher education institutions to develop future scientists, professionals, and leaders in health sciences who will more effectively contribute to understanding issues related to health sciences and related disciplines.
- To meet the annual demand in the market for individuals formally educated and trained at institutions of higher education as scientists, professionals, and leaders in health sciences and related disciplines.
- To annually increase the availability of health education programs to communities in which CSREES partners and cooperators play an active research, education, or extension role.
- To annually enhance efforts to foster constituent and citizen participation on public policy issues affecting health community decision-making.

REE Goal 4. Greater harmony between agriculture and the environment

CSREES Objective 4.1: To develop, transfer, and promote the adoption of efficient and sustainable agricultural, forestry, and other resource conservation policies, programs, technologies, and practices that ensure ecosystems integrity and biodiversity.

Outputs

To annually increase the research and knowledge-base available from CSREES
partners and cooperators on environmental sciences and agriculture, including
conserving, maintaining, and protecting ecosystem integrity and biodiversity.

Outcomes

- To annually ensure ecosystems integrity and biodiversity.
- To annually increase agricultural producer awareness, understanding, and information
 regarding the adoption of agricultural production practices that sustain and/or protect
 ecosystem integrity and biodiversity in which CSREES partners and cooperators play
 an active research, education, and extension role.
- To strengthen the capacity of higher education institutions to develop future scientists,
 professionals, and leaders in environmental sciences and related disciplines who will
 more effectively contribute to the development of agricultural production practices that
 sustain and/or protect ecosystems and bring into greater balance agricultural production
 activities and biodiversity needs of the surrounding ecosystem.
- To meet the annual demand in the market for individuals formally educated and trained as scientists, professionals, and leaders in environmental sciences and related disciplines.

CSREES Objective 4.2: To develop, transfer, and promote adoption of efficient and sustainable agricultural, forestry, and other resource policies, programs, technologies, and practices that protect, sustain, and enhance water, soil and air resources.

Outcomes

- To annually increase producer adoption of agricultural production practices that conserve and/or protect surface and groundwater supplies on or adjacent to agricultural production sites or land uses.
- To annually increase producer adoption of agricultural production "best practices" that conserve, protect, and/or enhance the soil resources on or adjacent to agricultural production sites or land uses.

CSREES Objective 4.3: To improve decision-making on public policies related to agriculture and the environment.

Outputs

To annually increase the research and knowledge-base available from CSREES
partners and cooperators on public policy issues affecting agricultural production, the
environment, and ecosystem integrity and biodiversity.

Outcomes

 To annually increase efforts to foster constituent and citizen participation on public policy issues affecting agricultural production, the environment, and ecosystem integrity and biodiversity.

REE Goal 5. Enhanced economic opportunity and quality of life for Americans

CSREES Objective 5.1: To increase the capacity of communities and families to enhance their own economic well-being.

Outputs

• To annually increase the research and knowledge-base available from CSREES partners and cooperators on the economic well-being of communities and their citizens.

Outcomes

- To annually increase economic opportunities in communities through economic development programs in which CSRES partners and cooperators play an active research, education, and extension role.
- To annually improve the financial status of families through financial management education programs implemented in which CSREES partners and cooperators play an active research, education, or extension role.
- To strengthen the capacity of higher education institutions to develop future scientists, professionals, and leaders in family, consumer, and community economics who will more effectively contribute to greater understanding of economic issues.
- To meet the annual demand in the market for individuals formally educated and trained at institutions of higher education as scientists, professionals, and leaders in family, consumer, and community economics and related disciplines.

CSREES Objective 5.2: To increase the capacity of communities, families, and individuals to improve their own quality of life.

Outcomes

- To annually increase the incidence of caring communities resulting from non-formal education programs in which CSREES partners and cooperators play an active research, education, or extension role.
- To annually increase the incidence of strong families resulting from non-formal education programs in which CSREES partners and cooperators play an active research, education, or extension role.

Managerial Initiatives

The benefits of university-based agricultural research, education, and extension programs are derived not only from Federal financial support coupled with the management, scientific, and programmatic efforts of state and county professional and support staff, but also from the program management, direction, and oversight provided by Federal staff. CSREES will take the following strategic actions to steer the direction and assure the quality of Federal investment in the decentralized, university-based, agricultural knowledge system.

Management Initiative A: Designing and implementing new programs and funding mechanisms to facilitate the transition in American agriculture to a world market base.

International trade agreements such as the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA), the Federal Agriculture Improvement and Reform (FAIR) Act of 1996, improvements in international communications and finance, and the emergence of new agricultural markets and suppliers are working in concert to fully integrate U.S. agriculture into world markets and away from decisions based on the commodity programs. To succeed in this environment, producers and the communities in which they live need the benefits of agricultural science and education to provide a comparative advantage.

Outputs:

Operating rules and protocols for the Fund for Rural America.

Jointly developed (with the National Agricultural Research, Extension, Education, and Economics Advisory Board) program description and request for proposals for the for Rural America.

Outcomes:

Active, interdisciplinary, interfunctional projects to transfer technology from agricultural laboratories to producers, processors, distributors, and consumers.

Long-term economic growth, and sustained well-being of rural communities.

Management Initiative B: Linking university, private, and Federal scientific and programmatic expertise for the purposes of planning innovative and cost effective programs.

The long-term cooperative relationship between land-grant universities, Federal laboratories, and other research and educational institutions with the Cooperative State Research, Education, and Extension Service, and new legislation in the FAIR Act of 1996, provide a unique opportunity to jointly plan and deliver programs. CSREES can benefit from flexible staffing, partners can engage in faculty and staff development opportunities, and the agricultural knowledge system will be directed by the joint decisions and involvement of users, providers, and administrators of agency programs.

Outputs:

Problem solving task forces formed within the CSREES headquarters and between the Agency partners and other Federal agencies, public, and private organizations to address high priority problems.

Increased use of Intergovernmental Personnel Act (IPA) shared faculty, and term appointment opportunities for university and Federal laboratory scientists and educators.

Outcomes:

Collective knowledge of system and agency priorities and capacity.

Cost-effective staffing across a wide range of disciplines and skills.

Rapid response to critical issues through innovative program design and delivery.

Management Initiative C: Brokering the capacity of agricultural scientists and educators to address critical public issues in related fields.

The boundaries of agricultural science and education are expanding as the expertise of university-based professionals in the field widens and deepens. CSREES can help utilize the capacity in agriculture to address current and emerging issues related to the environment, economic development, materials science, human health and related areas by linking to the missions of Federal and private programs in these fields. The agency has broad authority to manage research and education funds to the land grant universities and other eligible institutions, enter memoranda of understanding, and conduct planning and coordination activities to leverage resources to respond in a unified, effective way to critical issues.

Outputs:

Joint plans across programs to address critical issues.

Increased resources to land grant universities to support research and education.

Outcomes:

Innovative, cost-effective solutions to public problems such as environmental degradation, public health, rural development, integrated pest management, water quality, and food safety.

Management Initiative D: Continuous Review of Programs, Projects, and Processes.

The agency will expand the research review process to comprehensive program reviews, addressing formula, competitive and noncompetitive research, extension, education, and buildings and facilities grants, within a university department, program or laboratory. It also will establish a program management protocol review process for internal assessment of program objectives and implementation procedures for each major special grant, Smith—Lever 3(d) program, and other authorized, funded programs. In addition, CSREES will—develop new post-award management procedures to assure oversight of the agencies 6,000 active awards.

Outputs:

Expert guidance to university program administrators, scientists, and educators developed by teams of subject matter peers.

Annual management plans for each major program administered by the agency.

Established, codified procedures to guide programmatic, financial, and technical oversight of grants and awards.

Outcomes:

Non-duplicative research and education programs which meet high standards for scientific merit, relevance to important issues, and usefulness in solving state, regional, and national problems.

Focused Federal expenditures to best use; responsive programs across programs or within institutions.

Redirection of resources to respond to emerging issues of national importance.

Management Initiative E: Improved management information systems.

Currently the agency supports the Current Research Information System (CRIS), grants tracking software, and Extension plans of work. These systems need to be updated and consolidated or coordinated to expedite response to questions about agency programs, provide data useful in assessing program outcomes, and facilitate information sharing within the agricultural knowledge system.

Make informed decisions on future programs.

Assess program impacts.

Outputs:

Up-to-date management information system(s).

Outcomes:

Research based guidance available to producers, processors, traders, policy makers, consumers, educators and other interested in agriculture.

Current information about trends, issues, projects and programs in agricultural research, education, and extension leading to timely response to inquiries, rapid resolution of problems, and reduction in duplication of effort.

Public accountability for program expenditures.

The agency, in collaboration with Federal and university partners, will review and improve information management systems, and collaborate to develop short and long-term performance measures.

Annual Performance Plan

While the plan outlines broad outcomes and outputs, a link to measures will take place as the framework of the strategic plan is linked to a performance plan. The performance plan is being developed through an iterative process that will give guidance in developing annual and five year responses. During the Month of April 1997, four regional orientation sessions were held to develop acceptance for the strategic planning framework and activities that generated outcome measures. In September 1997, CSREES initiated work with university research and education partners to set State level performance targets and establish baseline values for the targets. In May 2000, CSREES appointed a group of Plan of Work advisors to initiate discussion on better strategies to link Federal expenditures with outcomes. These strategies will be linked to the electronic planning and reporting systems being developed by CSREES under the Research, Education, and Economics Information System (REEIS).

Budget

In establishing a budget base for the plan, the FY 2000 agency budget will be used. The estimate presents the correspondence between REE outcomes and the functional areas in which programs are implemented (Basic Research; Applied Research; Extension, Outreach and Information Dissemination; and Higher Education).

	Basic Research	Applied Research	Extension, Outreach, and Information Dissemination	Higher Education
Competitive agricultural system in the global economy	61.8	79.4	76.9	11.8
Safe, secure food and fiber system	53.5	68.7	70.7	3.9
Healthy, well-nourished population	21.9	28.0	167.7	2.7
Agriculture interface with the environment	44.4	56.9	59.3	3.3
Economic development and quality of life	28.3	36.3	69.4	5.3
Total by Function	209.9	269.3	444.0	27.0

Appendices

Appendix A: Glossary of Terms

Customers: Individuals or organizations that directly use CSREES products and services.

Stakeholders: Organizations or individuals that have an interest in the work of CSREES, but may or may not directly use the agency's products.

Partners: Organizations that CSREES works with collaboratively.